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Title: Sperm Whale and Longline Fisheries Interactions in the Eastern Gulf of Alaska

Category: Conservation

Student: Not Applicable

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Abstract: Sperm whales have learned to take sablefish, a natural prey, off longline gear in the Gulf of Alaska. Reports of depredation were first noted in 1978 and have steadily increased in frequency and severity, with a notable increase since the late 1990s, likely due to the lengthening of the fishing season. The most recent account (Sigler et al., 2002) found a 23% reduction in catch, if sperm whales are observed depredating on longline caught fish. Because the amount of sablefish mortality caused by sperm whale depredation is unknown it presents fisheries managers with a difficult assessment problem. In Alaska, depredation has created economic loss for fishermen. Although, no mortality or serious injury has yet occurred, mortalities and serious injury of sperm whales have occurred in other areas of the world due to similar fisheries interactions (also reviewed). Through cooperative research with fishermen, government and scientists, our ultimate goal is to provide recommendations for strategies to reduce or eliminate depredation on longline gear by sperm whales. As a first step, we are collecting information, with collaboration from the southeastern Alaskan fishing fleet, on the timing of interactions seasonally and diurnally, and have identified at least five individual sperm whales occurring near fishing boats through photographic identification and genetic samples. This research will: define the scope of the problem; help identify stock structure and the ecology of this endangered species; provide baseline information needed for studying depredation mechanisms and cues; and, finally, assist in the developing of non lethal deterrence to sperm whale depredation.

Sigler, M.F., C.R. Lunsford, S.A. Lowe, and F.R. Fujioka. 2002. Alaska sablefish stock assessment for 2002. In, Stock assessment and fishery evaluation report for the groundfish resources of the Gulf of Alaska. Gulf of Alaska Plan Team, Report to the North Pacific Fisheries Management Council, Anchorage, AK.